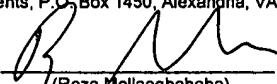




I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: US Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: June 9, 2006 Signature: 

Docket No.: 022727-0129

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Jerome L. Ackerman et al.

Application No.: 10/532,156

Filed: April 20, 2005

For: RADIOFREQUENCY COIL AND  
CATHETER FOR SURFACE NMR  
IMAGING AND SPECTROSCOPY  
(AS AMENDED)

Confirmation No.: 6179

Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

### INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

Applicant has not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR § 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 CFR § 1.98(a)(2).

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. In accordance with 37 CFR § 1.97(h), the filing of this

Information Disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56 (b).

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and the Examiner is respectfully requested to consider the listed references.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR § 1.97(b)(3)), and thus it is believed that no fees are due. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 141449, under Order No. 022727-0129.

Dated: *June 9, 2006*

Respectfully submitted,

By *R*

Reza Mollaaghataba

Registration No.: 43,810

NUTTER MCCLENNEN & FISH LLP

World Trade Center West

155 Seaport Boulevard

Boston, Massachusetts 02210-2604

(617) 439-2000

(617) 310-9000 (Fax)

Attorney for Applicant

1460197.1



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/B/PTO				Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/532,156-Conf. #6179
(Use as many sheets as necessary)				Filing Date	November 7, 2005
Sheet	1	of	4	First Named Inventor	Jerome L. Ackerman
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	022727-0129

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
AA*	US-5,713,907		02-03-1998	Hogendijk et al.	
AB*	US-5,699,801		12-23-1997	Atalar et al.	
AC*	US-4,173,228		11-06-1979	Van Steenwyk et al.	
AD*	US-5,928,145		07-27-1999	Ocali et al.	
AE*	US-4,821,731		04-18-1989	Martinelli et al.	
AF	US-RE,36,764		07-04-2000	Zacca, et al.	
AG*	US-5,217,474		06-08-1993	Zacca et al.	
AH*	US-4,867,745		09-19-1989	Patel	
AI*	US-4,419,094		12-06-1983	Patel	
AJ*	US-6,099,460		08-08-2000	Denker	
AK*	US-4,955,862		09-11-1990	Sepetka	
AL*	US-5,964,705		10-12-1999	Truwit et al.	
AM*	US-5,947,962		09-07-1999	Guglielmi et al.	
AN*	US-5,895,398		04-20-1999	Wensel et al.	
AO*	US-5,749,918		05-12-1998	Hogendijk et al.	
AP*	US-5,425,367		06-20-1995	Shapiro et al.	
AQ*	US-5,098,431		03-24-1992	Rydell	
AR*	US-3,633,758		01-11-1972	Morse, et al.	
AS*	US-6,149,664		11-21-2000	Kurz	
AT*	US-6,136,015		10-24-2000	Kurz et al.	
AU*	US-6,120,499		09-19-2000	Dickens et al.	
AV*	US-6,102,932		08-15-2000	Kurz	
AW*	US-6,090,125		07-18-2000	Horton	
AX*	US-6,066,133		05-23-2000	Guglielmi et al.	
AY*	US-6,010,498		01-04-2000	Guglielmi	
AZ*	US-5,976,126		11-02-1999	Guglielmi	
AA1*	US-5,947,963		09-07-1999	Guglielmi	
AB1*	US-5,944,714		08-31-1999	Guglielmi et al.	
AC1*	US-5,928,226		07-27-1999	Guglielmi	
AD1*	US-5,925,037		07-20-1999	Guglielmi et al.	
AE1*	US-5,895,385		04-20-1999	Guglielmi et al.	
AF1*	US-5,855,578		01-05-1999	Guglielmi et al.	
AG1*	US-5,431,168		07-11-1995	Webster, Jr.	
AH1*	US-5,429,597		07-04-1995	DeMello et al.	
AI1*	US-5,387,219		02-07-1995	Rappe	
AJ1*	US-5,250,284		10-05-1993	Krongrad	
AK1*	US-5,125,928		06-30-1992	Parins et al.	
AL1*	US-5,078,717		01-07-1992	Parins et al.	
AM1*	US-5,057,107		10-15-1991	Parins et al.	
AN1*	US-4,976,711		12-11-1990	Parins et al.	
AO1*	US-4,568,334		02-04-1986	Lynn	
AP1*	US-4,169,464		10-02-1979	Obrez	
AQ1*	US-3,680,562		08-01-1972	Wittes, et al.	
AR1*	US-5,206,592		04-27-1993	Buess et al.	
AS1*	US-4,793,356		12-27-1988	Misic et al.	

Examiner Signature	Date Considered
--------------------	-----------------



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/B/PTO				Complete If Known	
				Application Number	10/532,156-Conf. #6179
				Filing Date	November 7, 2005
				First Named Inventor	Jerome L. Ackerman
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	2	of	4	Attorney Docket Number	022727-0129

AT1*	US-6,453,189	09-17-2002	Gilderdale	
AU1	US-6,387,350 B2	05-14-2002	Goldenberg	
AV1*	US-6,096,289	08-01-2000	Goldenberg	
AW1*	US-5,233,300	08-03-1993	Buess et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)			
					T <sup>6</sup>

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(ii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	CA	Hyde, et al., "A Surface Coil For Skin," Magnetic Resonance in Medicine, August 1987, pp. 456-461, 841			
	CB	Yoshikawa, et al., "Superficial 31P Spectroscopy of Human Transplanted Facial Muscle," Society of Magnetic Resonance in Medicine Fifth Annual Meeting, August 19-22, 1986, Montral. Abstracts (WIP) p. 73-74.			
	CC	Fox TR. Capacitive network to cancel coupling between channels in MRI quadrature antennas. Society of Magnetic Resonance in Medicine. Sixth Annual Meeting, August 17-21, 1987, New York. Abstracts p. 99.			
	CD	Kandarpa, et al., "Prototype Miniature Endoluminal MR Imaging Catheter," J Vasc Interv Radiol. 1993; 4: 419-427			
	CE	Atalar, et al., "High Resolution Intravascular MRI and MRS by Using a Catheter Receiver Coil," Magn Reson Med. 1996; 36: 596-605			
	CF	Libby, P, "Current Concepts of the Pathogenesis of the Acute Coronary Syndromes, "Circulation. 104, 365-372 (2001)			
	CG	Pearlman, et al., "Nuclear Magnetic Resonance Microscopy of Atheroma in Human Coronary Arteries," Agiology. 42, 726-733 (1991)			
	CH	Fayad, et al., "Clinical Imaging of the High-Risk or Vulnerable Atherosclerotic Plaque," Circ. Res. 89, 305-316 (2001)			
	CI	Rogers, et al., "Characterization of Signal Properties in Atherosclerotic Plaque Components by Intravascular MRI," Arterioscler. Thromb. Vasc. Biol. 20, 1824-1830 (2000)			
	CJ	Ocali, et al., "Intravascular Magnetic Resonance Imaging Using a Loopless Catheter Antenna," Magn. Reson. Med. 37, 112-118 (1997)			
	CK	Kumar, et al., "MR Imaging with a Biopsy Needle," Proceedings of the 9th Annual Meeting of ISMRM, Glasgow, Scotland, p 2148 (2001)			
	CL	Quick, et al., "Vascular Stents as RF Antennas for Intravascular MR Guidance and Imaging," Magn. Reson. Med. 42, 738-745 (1999)			
	CM	Quick, et al., "Singl-Loop Concepts for Intravascular Magnetic Resonance Imaging," Magn.			
Examiner Signature		Date Considered			



PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete If Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/532,156-Conf. #6179
(Use as many sheets as necessary)				Filing Date	November 7, 2005
				First Named Inventor	Jerome L. Ackerman
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	3	of	4	Attorney Docket Number	022727-0129

		Reson. Med. 41, 751-758 (1999)	
CN		Kantor, et al., "In Vivo 31P Nuclear Magnetic Resonance Measurements in Canine Heart Using a Catheter Coil," Circ. Res. 55, 261-266 (1984)	
CO		Crottet, et al., "Reciprocity and Sensitivity of Opposed-Solenoid Endovascular MRI Probes," J. Magn. Reson. 159, 219-225 (2002)	
CP		Hurst, et al., "Intravascular (Catheter) NMR Receiver Probe: Preliminary Design Analysis and Application to Canine Iliofemoral Imaging," Magn. Reson. Med. 24, 343-357 (1992)	
CQ		Nakada, et al., "31P NMR-Spectroscopy of the Stomach by Zig Zag Coil," Magn. Reson. Med. 5, 449-455 (1987)	
CR		Buess, et al., "NQR Detection Using a Meanderline Surface Coil," J. Magn. Reson. 92, 348-362 (1991)	
CS		Sethares, et al., "A new model for the flat conductor electromagnetic SAW transducer," J. Appl. Phys. 49, 1054-1060 (1978)	
CT		Haus, et al., "Modes of grafting waveguide," J. Appl. Phys. 49, 1061-1069 (1978)	
CU		Kivelitz, et al., "A Vascular Stent as an Active Component for Locally Enhanced Magnetic Resonance Imaging," Lippincott Williams & Wilkins, p. 147-152	
CV		Worthley, et al., "A Novel Nonobstructive Intravascular MRI Coil, In Vivo Imaging of Experimental Atherosclerosis," Arterioscler Thromb Vac. Biol., p. 346-350	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	Date Considered
--------------------	-----------------



PTO/SB/92 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Application No. (if known): 10/532,156

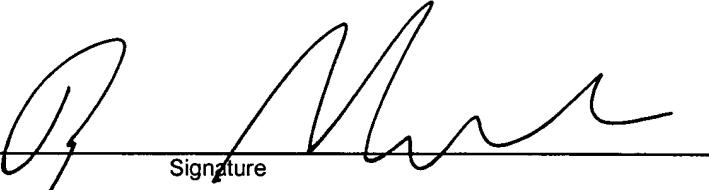
Attorney Docket No.: 022727-0129

## Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

on June 9, 2006  
Date

  
Signature

Reza Mollaaghababa

Typed or printed name of person signing Certificate

43,810  
Registration Number, if applicable

(617) 439-2514  
Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

IDS (Citation) by Applicant 22 References Attached (4 pages)

1536879.1